

Serial No.: 09/413,012
Docket No.: R0052CON
Amendment Dated May 4, 2006
Responsive to the Office Action dated March 6, 2006

Amendments to the Claims:

A complete listing and status of all claims is presented below.

5 1-33. (Canceled).

34. (Previously presented) A tissue dissector, comprising:
an elongated cannula having a proximal end and a distal end;
a distal tip having tapered outer walls converging to a blunt end for dissecting
10 tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate
passage of the cannula through tissue;
a length of screw threads positioned on an outer surface of the cannula proximal to
the distal tip; and
a dilating element disposed on the cannula proximal to the distal tip, the dilating
15 element having a smooth exterior contour to facilitate atraumatic expansion of tissue
following dissection by the tapered distal tip, the dilating element having a cross-sectional
dimension greater than the cross-sectional dimension of the distal end of the cannula and
greater than the cross-sectional dimension of the distal tip, the dilating element further
comprising a threaded bore hole formed in the dilating element for engaging the length of
20 screw threads on the cannula for removably positioning the dilating element on the
cannula.

35. (Previously presented) The tissue dissector of claim 34, wherein the dilating
element is solid.

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36. (Withdrawn) The tissue dissector of claim 35, wherein the dilating element is
selected from the group consisting of: polytetrafluoroethylene, polyurethane, and polycarbonate.

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37. (Previously presented) The tissue dissector of claim 34, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

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38. (Previously presented) The tissue dissector of claim 34, further including a spacer length of cannula of between 14-28 mm disposed between a distal end of the dilating element and a proximal end of the distal tip.

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39. (Previously presented) The tissue dissector of claim 34, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the cannula.

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40. (Previously presented) The tissue dissector of claim 39, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

41. (Previously presented) The tissue dissector of claim 34, wherein the exterior contour of the dilating element is an oval-shape.

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42. (Previously presented) The tissue dissector of claim 34, wherein the dilating element is compressible.

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43. (Previously presented) A tissue dissector kit, comprising:
an elongated cannula having a proximal end and a distal end;
a distal tip having tapered outer walls converging to a blunt end for dissecting tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate passage of the cannula through tissue;

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a locking mechanism positioned on the cannula proximal to the distal tip; and
a plurality of dilating elements each adapted to mount on the cannula proximal to
the distal tip, each dilating element having a smooth exterior contour to facilitate
atraumatic expansion of tissue following dissection by the tapered distal tip, each dilating
5 element having a cross-sectional dimension greater than the cross-sectional dimension of
the distal end of the cannula and greater than the cross-sectional dimension of the distal
tip, the cross-section sectional dimension of each dilating element being different from one
another, each dilating element further comprising a mating lock adapted to mate with the
locking mechanism on the cannula for removably positioning each dilating element on the
10 cannula,

wherein different dilating elements may be mounted one at a time on the cannula
for dissecting tissue and therefore forming cavities of differing dimensions.

44. (Previously presented) The tissue dissector of claim 43, wherein the locking
15 mechanism comprises a length of screw threads positioned on an outer surface of the cannula, and
the mating lock comprises a threaded bore hole formed in each dilating element for engaging the
length of screw threads.

45. (Withdrawn) The tissue dissector of claim 43, wherein the locking mechanism
20 comprises at least one protruberance positioned on an outer surface of the cannula, and the
mating lock comprises a mating slot formed in each dilating element for engaging the
protruberance.

46. (Previously presented) The tissue dissector of claim 43, further including an
25 endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow
tissue being dissected to be visualized with the endoscope through the distal tip.

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47. (Previously presented) The tissue dissector of claim 43, further including a spacer length of cannula of between 14-28 mm disposed between a distal end of each mounted dilating element and a proximal end of the distal tip.

5 48. (Previously presented) The tissue dissector of claim 43, wherein the cross-sectional dimension of each dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the cannula.

49. (Previously presented) The tissue dissector of claim 48, wherein the cross-sectional
10 dimension of each dilating element is between 15-30 mm.

50. (Previously presented) The tissue dissector of claim 43, wherein the exterior contour of each dilating element is an oval-shape.

15 51. (Withdrawn) The tissue dissector of claim 43, wherein each dilating element is compressible.

52. (Previously presented) A tissue dissector, comprising:
an elongated cannula having a proximal end and a distal end;
20 a distal tip having tapered outer walls converging to a blunt end for dissecting tissue, the tip being disposed on the distal end of the cannula to dissect tissue and facilitate passage of the cannula through tissue; and
a solid dilating element of fixed outer dimension disposed on the cannula proximal to the distal tip, the dilating element having a smooth exterior contour to facilitate
25 atraumatic expansion of tissue following dissection by the tapered distal tip, the dilating element having a cross-sectional dimension greater than the cross-sectional dimension of

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the distal end of the cannula and greater than the cross-sectional dimension of the distal tip.

53. (Previously presented) The tissue dissector of claim 52, wherein the dilating
5 element is removably mounted on the cannula.

54. (Previously presented) The tissue dissector of claim 53, further including a length
of screw threads positioned on an outer surface of the cannula proximal to the distal tip, and
wherein the dilating element further comprises a threaded bore hole for engaging the length of
10 screw threads and removably positioning the dilating element on the cannula.

55. (Previously presented) The tissue dissector of claim 53, further including at least
one protruberance positioned on an outer surface of the cannula proximal to the distal tip, and
wherein the dilating element further comprises a mating slot for engaging the protruberance and
15 removably positioning the dilating element on the cannula.

56. (Previously presented) The tissue dissector of claim 52, further including an
endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow
tissue being dissected to be visualized with the endoscope through the distal tip.

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57. (Previously presented) The tissue dissector of claim 52, further including a spacer
length of cannula of between 14-28 mm disposed between a distal end of the dilating element and
a proximal end of the distal tip.

25 58. (Previously presented) The tissue dissector of claim 52, wherein the cross-sectional
dimension of the dilating element is at least two times larger than the cross-section sectional
dimension of the distal end of the cannula.

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59. (Previously presented) The tissue dissector of claim 58, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

5 60. (Previously presented) The tissue dissector of claim 52, wherein the exterior contour of the dilating element is an oval-shape.

61. (Withdrawn) The tissue dissector of claim 52, wherein the distal tip and dilating element are formed as a single unit removably mounted on the cannula.

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62. (Previously presented) The tissue dissector of claim 61, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

15 63. (Previously presented) A tissue dissector, comprising:
an elongated cannula having a proximal end and a distal end; and
a dilating unit removably mounted on the cannula distal end, including:
a distal tip having tapered outer walls converging to a blunt end for
dissecting tissue, the tip being disposed on the distal end of the dilating unit to
20 dissect tissue and facilitate passage of the cannula through tissue; and
a dilating element having a cross-sectional dimension greater than the cross-
sectional dimension of the distal end of the cannula and greater than the cross-
sectional dimension of the distal tip, the dilating element being located proximally
with respect to the distal tip to facilitate expansion of tissue following dissection by
25 the tapered distal tip.

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64. (Previously presented) The tissue dissector of claim 63, further including a length of screw threads positioned on an outer surface of the cannula near the distal end thereof, and wherein the dilating unit further comprises a threaded bore hole for engaging the length of screw threads and mounting the dilating unit on the distal end of the cannula.

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65. (Previously presented) The tissue dissector of claim 63, further including at least one protruberance positioned on an outer surface of the cannula near the distal end thereof, and wherein the dilating unit further comprises a mating slot for engaging the protruberance and mounting the dilating unit on the distal end of the cannula.

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66. (Previously presented) The tissue dissector of claim 63, further including an endoscope sized to fit within a lumen of the cannula, wherein the distal tip is transparent to allow tissue being dissected to be visualized with the endoscope through the distal tip.

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67. (Withdrawn) The tissue dissector of claim 63, further including a spacer length of the dilating unit of between 14-28 mm disposed between a distal end of the dilating element and a proximal end of the distal tip.

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68. (Withdrawn) The tissue dissector of claim 63, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal tip.

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69. (Withdrawn) The tissue dissector of claim 68, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

70. (Withdrawn) The tissue dissector of claim 63, wherein the exterior contour of the dilating element is an oval-shape.

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71. (Withdrawn) The tissue dissector of claim 63, wherein the dilating element is compressible.

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